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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/815,881

03/31/2004

Montgomery M. Alger

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EXAMINER

YOON, TAE H

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/815,881	<b>Applicant(s)</b> ALGER ET AL.	
	<b>Examiner</b> Tae H. Yoon	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9, 13-24, 26 and 36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13-24, 26 and 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 9, 14, 16, 17, 20-24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al (US 6,946,084) in view of Laughner (5,270,386).

Examples 1-3 of Nakagawa et al teach polymeric pellet (col. 13, line 28) meeting the instant concentrate contrary to applicant's assertion. With respect to 50-99 wt.% of PPE in the concentrate, see claim 1 wherein a composition comprising 50-90 parts by weight of a polyamide, **50-10** parts by weight of a **PPE** and 1 to 35 parts by weight of a mixture of two or more block copolymer is taught. Thus, utilization of 50 wt.% of PPE in said examples would be a *prima facie* obviousness. See ***In re Mills***, 477 F2d 649, 176 USPQ 196 (CCPA 1972); Reference must be considered for all that it discloses and must not be limited to its preferred embodiments or working examples.

Nakagawa et al further teach that said pellets were **molded** at col. 17, lines 60-62, and said molding process inherently would require melt (mixing). .

The instant invention further recites melt mixing of a component such as reinforcing agent, electrically conductive filler and/or other additives over Jung et al. However, melt mixing such additives with commercially known blend or concentration is well known as taught by Laughner (carbon black in tables and additives such as fiberglass at col. 28, lines 6-29). Use of up to 40 wt.% is taught in lines 26-29. Thus, a composition containing 50 wt.% of PPE of

Nakagawa et al with an addition of 20 wt.% of fiberglass, for example, still would yield a composition with greater than 34 wt.% of PPE in the final composition.

It would have been obvious to one skilled in the art at time of invention to employ fiberglass of Laughner during molding process of examples 1-3 of Nakagawa et al in order to improve mechanical properties of the molded article thereof since melt mixing such additives with commercially known blend or concentration is well known as taught by Laughner and since addition of such additives would provide an easy customization and since addition of fiberglass during a later stage of a molding process would provide an advantage, less breakage of fibers.

Claims 1-9, 15-17, 20-24, 26 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jung et al (US 6,822,026) in view of Laughner (5,270,386).

Jung et al teach a polymeric pellet comprising 1-50% by weight of a PPE, polyolefin, block copolymer and flame retardant additives in abstract and examples. Said polymeric pellet would meet the instant concentrate. A mixture of components before melt mixing taught at col. 6, lines 1-5 would be the instant dry blend of claim 8.

Jung et al teach use of pellets in injection molding at col. 6, lines 44-57. Claim 1 teach 1-50 wt.% of PPE and see *In re Mills*.

The instant invention further recites melt mixing of a component such as reinforcing agent, electrically conductive filler and/or other additives over Jung et al. However, melt mixing such additives with commercially known blend or concentration is well known as taught by Laughner (carbon black in tables and additives such as fiberglass at col. 28, lines 6-29). Use of up to 40 wt.% is taught in lines 26-29. Thus, a composition containing 50 wt.% of PPE of Jung

et al with an addition of 20 wt.% of fiberglass, for example, still would yield a composition with greater than 34 wt.% of PPE in the final composition.

It would have been obvious to one skilled in the art at time of invention to employ fiberglass of Laughner during molding process of examples of Jung et al in order to improve mechanical properties of the molded article thereof since melt mixing such additives with commercially known blend or concentration is well known as taught by Laughner and since Jung et al teach employing such additives at col. 5, lines 46-53 and since addition of such additives would provide an easy customization and since addition of fiberglass during a later stage of a molding process would provide an advantage, less breakage of fibers.

Claims 1-9, 13-24, 26 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adedeji et al (US 6,258,879) and Laughner (5,270,386).

Adedeji et al teach a composition comprising PPE, polystyrene and organic phosphate, and optional components including polyolefins, polyamides, impact modifiers, flame retardants and/or fillers at col. 2, lines 2-19 and in examples. Adedeji et al further teach employing various mixing methods including **pre-compounding** at col. 6, lines 36-65.

The instant invention further recites melt mixing of a component such as reinforcing agent, electrically conductive filler and/or other additives over Adedeji et al. However, melt mixing such additives with commercially known blend or concentration is well known as taught by Laughner (carbon black in tables and additives such as fiberglass at col. 28, lines 6-29).

It would have been obvious to one skilled in the art at time of invention to employ fiberglass (reinforcing filler) during molding process in examples of Adedeji et al with teaching

of Laughner in order to improve mechanical properties of the molded article thereof since melt mixing such additives with commercially known blend or concentration is well known as taught by Laughner and since Adedeji et al teach employing such additives and various mixing methods including pre-compounding and since addition of such additives would provide an easy customization and since addition of fiberglass during a later stage of a molding process would provide an advantage, less breakage of fibers. Applicant failed to show any unexpected result.

Applicant's vaguely discussed heat history and good physical properties have little probative value. Also, scope of claim is broader than such showing with a high impact polystyrene even with a favorable consideration of examples.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tae H Yoon  
Primary Examiner  
Art Unit 1796

THY/March 31, 2008

/Tae H Yoon/